

# URGENT

\*TB 1-1520-237-20-258

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### SAFETY OF FLIGHT, TECHNICAL, RCS CSGLD-1860 (R1), MAIN MODULE PLANETARY CARRIER ASSEMBLY, ALL UH-60A, EH-60A AND UH-60Q SERIES AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
12 June 2002

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**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

**1. Priority Classification. URGENT**

**NOTE**

IAW AR 95-1, para 6-6a, MACOM Commanders may authorize temporary exception from message requirements. Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued aircraft operation.

a. Upon receipt of this TB, make the following entry on the DA Form 2408-13-1. Enter a red dash / - / - / status symbol with the following statement: "inspect aircraft IAW TB 1-1520-237-20-258 prior to next flight." Clear the red horizontal dash / - / - / entry when the procedures IAW paragraphs 8 and 9 are completed. The affected aircraft shall be inspected prior to next flight. Commanders who are unable to comply with the requirements of this TB within the time frame specified will upgrade the affected aircraft status symbol to a red / x / /.

b. Aircraft In Maintenance. Same as paragraph 1.a..

c. Aircraft in Transit. Same as paragraph 1.a..

d. Maintenance Trainers (Category A and B). Same as paragraph 1.a..

e. Component/Parts in Stock at All Levels (Depot Level and Others), including War Reserves. N/A.

f. Components/Parts in Work (Depot Level and Others). N/A.

**2. Task/Inspection Suspense Date.** Comply with TB requirements prior to next flight and report IAW paragraph 14.a.(2) NLT 29 May 02.

**3. TAMMS Reporting Compliance Suspense Date.** Report compliance IAW paragraph 14.a.(1) NLT 29 May 02.

\* This TB supersedes USAAMCOM Safety Of Flight (SOF) messages, 041815Z MAY 02 (UH-60-08) and 221415Z MAY 02, (UH-60-02-09) and TB 1-1520-237-20-255.

**4. Summary of Problem -**

a. During investigation of a QDR, a cracked planetary carrier was found in a main transmission module. Two subsequent Safety Of Flight messages required inspection of sump screens, filters and chip detectors for the presence of non-ferrous material and imposed flight restrictions on UH-60A, EH-60A and UH-60Q aircraft having main modules (transmission) above 1500 hours time since new (TSN) installed. Operations were limited to mission essential flights while extensive failure analyses were conducted. These analyses have now confirmed the fatigue nature of the crack and have determined that the temporary threshold can be raised. The mission essential only restrictions for aircraft above the temporary threshold are now being replaced with specific flight restrictions that will allow a range of mission profiles while avoiding conditions that could increase exposure to the risk.

b. Manpower/downtime and funding impacts – See paragraph 12.

c. The purpose of this TB is to -

(1) Increase upper limit for normal flight operations from 1500 to 2000 hours TSN on the planetary carrier assembly.

**NOTE**

This message allows restricted flight operations for aircraft that have exceeded the planetary carrier assembly interim life limit of 2000 hours operating time since new (TSN).

(2) Establish an interim life limit of 2000 hours operating time since new (TSN) FOR ALL UH-60A, EH-60A and UH-60Q series aircraft main module planetary carrier assemblies.

(3) Update DA Form 2408-16 (main module) information for the planetary carrier assembly.

(4) Allow aircraft with planetary carrier assemblies with over 2000 hours tsn to operate with flight restrictions.

**5. End Items to be Inspected.** All UH-60A, EH-60A and UH-60Q series aircraft

**6. Assembly Components to be Inspected.**

NOMENCLATURE	PART NO.	NSN
Transmission Mech Module	70351-08100-053	1615-01-076-1260
Transmission Mech Module	70351-08100-054	1615-01-105-1450
Transmission Mech Module	70351-08100-055	1615-01-129-7330
Transmission Mech Module	70351-08100-056	1615-01-105-8713
Transmission Mech Module	70351-08100-057	1615-01-134-7274
Transmission Mech Module	70351-08100-058	1615-01-128-1749
Transmission Mech Module	70351-08100-059	1615-01-145-3928
Transmission Mech Module	70351-08100-060	1615-01-168-2983
Transmission Mech Module	70351-08100-061	1615-01-284-6419
Transmission Mech Module	70351-08100-069	1615-01-316-2658
Transmission Mech Module	70351-08100-070	1615-01-316-2659
Transmission Mech Module	70351-08100-071	1615-01-375-5846
Transmission Mech Module	70351-08100-072	1615-01-375-5847
Transmission Mech Module	70351-08100-073	1615-01-413-7786
Transmission Mech Module	70351-08100-074	1615-01-415-8387

**7. Parts to be Inspected.** - N/A.**8. Inspection Procedures.**

- a. Ensure initial inspection and reporting requirements of UH-60-02-07/08 (TB 1-1520-237-20-255) have been completed.
- b. Conduct a records review of all UH-60A, EH-60A and UH-60Q DA Form 2408-16's to determine TSN for the main module.
- c. A CCAD review of main module assembly build-up records revealed that a number of zero time planetary carriers were installed in some main modules during repair. This information will be provided by the Logistical POC to those units that now have those main modules installed.

**9. Correction Procedures.**

- a. Complete DA Form 2408-16, main module (transmission), entries for the main module planetary carrier assembly.

(1) Units that have main module (transmission) with "zero time" planetary carrier assemblies installed (as verified by CCAD through the Logistical POC) shall use the data supplied by the Logistical POC to complete the DA Form 2408-16. If the planetary carrier assembly serial number is unknown, use the main transmission module serial number prefixed with a "C". The work unit code (WUC) is "06A18."

(2) For the remaining planetary carrier assemblies use the following information to complete the DA Form 2408-16 :

- (a) NOMENCLATURE: "Carrier Assembly". WUC -"06A18".
- (b) NSN: 1615-01-237-3685
- (c) P/N: 70351-08175-045
- (d) S/N: Do not use "UNKNOWN", use the main transmission module serial number with a "C" prefix.
- (e) No Prev O/H: "RC".
- (f) Nomem inst hrs: Use current Time Since New on the main transmission module.
- (g) Time since O/H: "RC".
- (h) Comp inst hrs-use current Time Since New on the main transmission module.
- (i) O/H or Replace Life: "2000".
- (j) Replacement due: Calculate the replacement due time.

b. ULLS-A units shall use this TB as authority to add the planetary carrier assembly to the component master file. Units shall use the "RCT" file to manage components over the life limit of 2000. Any questions should be addressed to the ULLS-A POC in paragraph 16..

c. If the main module planetary carrier assembly TSN is less than 2000 hours, clear the entry of paragraph 1.a. and make the following red dash \ \ - \ \ entry on the DA Form 2408-13-1: "Comply with requirements of TB 1-1520-237-20-258) upon reaching [####] aircraft hours". (Calculate [####] as 2000 hours TSN on main module planetary carrier assembly). Aircraft is cleared for normal flight operations until reaching 2000 hours TSN.

d. If the main module planetary carrier assembly TSN is 2000 hours or greater, clear the entry required in paragraph 1.a. and make the following entry on the DA Form 2408-13-1. Enter a circled red // X // status symbol with the following statement: "Operate aircraft IAW TB 1-1520-237-20-258".

e. If the main module planetary carrier assembly TSN is 2000 hours or greater, the following flight restrictions apply:

**NOTE**

The briefing officer will brief the applicable restrictions for each mission.

The following restrictions do not apply to mission essential combat and urgent MEDEVAC flights if the mission is approved by commanders, 0-5 or above, for main module planetary carriers at 2000 hours TSN or greater.

(1) Operations in Instrument Meteorological Conditions (IMC) are prohibited. Operations where suitable forced landing areas are not available, are not authorized. This includes over-water flights where a suitable forced landing area is beyond autorotational glide distance.

(2) ERFS, internal auxiliary fuel and air Volcano operations are not authorized.

(3) Aircraft restricted to 120 kias or 80 percent dual engine torque, whichever occurs first except actual maintenance test flights and emergencies.

(4) Only mission essential crew/passengers will be transported.

f. If any of the following occur during subsequent operations, regardless of planetary carrier TSN, notify the Technical POC prior to the next flight (no one-time flights are authorized):

(1) Aluminum foil-like debris in the main transmission filter.

(2) Drop in transmission oil pressure of 10 psi or more in steady state forward flight or level hover.

(3) Transmission oil pressure steady drop into the yellow.

(4) Aluminum foil-like debris is found in the main sump chip detector screens.

g. Add the following change to TM 1-1520-237-10 and TM 1-1520-253-10: Paragraph 9.22.10 Main Transmission Failure. If a main transmission planetary carrier fails.

**WARNING**

During a main transmission planetary carrier failure it may be impossible to maintain "Percent RPM R" at 100 percent. If "Percent RPM R" decreases from 100 percent to below 96 percent with an increase in torque during steady flight with no engine malfunction, reduce collective only enough to begin a descent with power remaining applied to the main transmission throughout the descent and landing.

**NOTE**

Decreasing "Percent RPM R" may be accompanied by a drop in transmission oil pressure of 10 psi or more and possible unusual aircraft vibrations.

(1) Collective: Adjust to begin a descent.

(2) Land as soon as possible.

h. Place a copy of this TB in the aircrew reading file. This may be removed once the TB is rescinded or superseded.

i. Add the following to the 25 hour oil sampling inspection. ULLS-A units will use an "800" inspection number for the new 25 hour oil sampling inspection.

(1) Inspect the main sump chip detector screen for aluminum foil-like debris.

(2) Inspect the main transmission oil filter for aluminum foil-like debris.

**10. Supply/Parts and Disposition.**

**NOTE**

HQDA-G-3 will prioritize units and repair parts distribution.

- a. Parts required - Items cited in paragraph 6 may be required to replace defective items.
- b. Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) "XE1" (X-Ray-Echo-One).

**NOTE**

Project code "XE1" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

- c. Bulk and Consumable Materials - As required IAW TM 1-1520-237-23-4, paragraph 6-4-1.1, "Replace Main Transmission".
- d. Disposition -Dispose of removed parts/components using normal supply procedures. All turn-in documents must include project code (CC 57-59) "XE1" (X-RAY-ECHO-ONE).
- e. Disposition Of Hazardous Material - IAW Environmental Protection Agency directives as implemented by your servicing Environmental Coordinator (AR 200-1).

**11. Special Tools, and Fixtures Required.. N/A.**

**12. Application.**

- a. Category of Maintenance. N/A
- b. Estimated Time Required: Time to complete inspection - Total of 1 man-hour using 1 person.
- c. Estimated cost impact to the field - N/A.
- d. TB/MWOs to be applied prior to or concurrently with this inspection. N/A
- e. Publications which require change as a result of this inspection:

TB 1-1500-341-01, TM 1-1520-237-10 and TM 1-1520-253-10 shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TB/TM as authority to implement the change until the printed change is received.

**13. Reference.- DA PAM 738-751,15 March 1999.**

**14. Recording and Reporting Requirements.**

- a. Aircraft:

(1) TAMMS Reporting Compliance Suspense.

Upon entering requirements of this TB on DA Form 2408-13-1 for all effected aircraft, commanders will forward a priority message, fax or email to: CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, IAW AR 95-1, NLT date specified in paragraph 3.. Fax number is DSN 897-2111 or (256) 313-2111. Email address is "safeadm@redstone.army.mil". The report will cite this TB number, date of entry on DA Form 2408-13-1, the aircraft mission design series and aircraft serial numbers in numerical order.

**NOTE**

If the task/inspection report IAW UH-60-02-07/08, paragraph 14.a.(2) has been completed, no additional task/inspection report is required.

(2) Task/Inspection Reporting Suspense.

Upon completion of inspection, commanders will forward a priority message to the Logistical Point of Contact listed in paragraph 16.b.. The report will cite this TB number, date of inspection, aircraft and component serial number, aircraft and component hours and results of the inspection. Inspection and reports will be completed NLT date specified in paragraph 2..

- b. Wholesale Spare Parts/Assemblies. - N/A.
- c. Retail Spare Parts/Assemblies. - N/A.
- d. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 March1999.

**NOTE**

ULLS-A users will use applicable "E" forms.

- (1) DA Form 2408-5-1, Equipment Modification Record (Main Module).
- (2) DA Form 2408-13, Aircraft Status Information Record.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (4) DA Form 2408-16, Aircraft Component Historical Record.
- (5) DA Form 2408-18, Equipment Inspection List.

**15. Weight and Balance.** N/A.

**16. Points of Contact.**

a. Technical POC's are -

(1) Primary - Mr. Scott Abernathy, AMSAM-RD-AE-P-T, DSN 897-2350, ext 5203 or (256) 319-5203. Fax is (256)705-9922, Email is "scott.abernathy@rdec.redstone.army.mil".

(2) Alternate # 1 - Mr. Jim Conner, AMSAM-RD-AE-P-S, DSN 897-2350 ext 5219 OR (256) 319-5219. Email is "jim.conner@rdec.redstone.army.mil".

(3) Alternate # 2 - Mr. Mark Jeude, (256) 319-5233. Fax is, (256) 705-9922. Email is "mark.jeude@rdec.redstone.army.mil".

b. Logistical point of contact is Mr. Joe Hoover, SFAE-AV-UH-L, DSN 645-7898 or (256) 955-7898, fax is DSN 897-3778 or (256)313-3778. Email is "joe.hoover@uh.redstone.army.mil"

c. ULLS-A Component Master File POC is Mr. Al Burlison, AMSAM-MMC-MA-NM, DSN 746-4468 or (256) 876-4468. Fax is DSN 746-4904. Email address is "alan.burlison@redstone.army.mil".

d. Forms and Records point of contact is Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or (256) 897-5564, fax is DSN 746-4904 or (256) 876-4904. Email is "ann.waldeck@redstone.army.mil".

e. Safety points of contact are:

(1) Primary - Mr. Randall Rushing (SAIC), AMSAM-SF-A, DSN 897-2092 or (256) 313-2092, Fax is DSN 897-2111 or (256) 313-2111. Email is "randall.rushing@redstone.army.mil".

(2) Alternate - Mr. Ron Price, AMSAM-SF-A, DSN 788-8636 or (256) 842-8636, fax is DSN 897-2111 or (256) 313-2111. Email is "ron.price@redstone.army.mil".

f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact:

(1) Primary: Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-6856 or (256) 313-6856. fax is DSN 897-6630 or (256) 313-6630. Email "ronnie.sammons@redstone.army.mil".

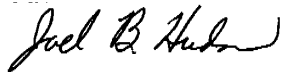
g. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or (256) 313-2066/7.

**17. Reporting of Errors and Recommended Improvements.** You can improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual, directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our fax number is: DSN 788-6546 or Commercial 256-842-6546. Our e-mail address is: 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028. For the World Wide Web use: <https://amcom2028.redstone.army.mil>.

**TB 1-1520-237-20-258**

**By Order of the Secretary of the Army:**

**Official:**



**JOEL B. HUDSON**

Administrative Assistant to the  
Secretary of the Army

0205319

**ERIC K. SHINSEKI**  
General, United States Army  
Chief of Staff

**DISTRIBUTION:**

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The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>

To: 2028@redstone.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.